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I hereby certify that the correspondence is being deposited with the United States Postal Service, with sufficient postage, as first class mail in an envelope addressed to:

Commissioner for Patents
Washington, D.C. 20231
on February 12, 2002

Date of Deposit

K. Shannon Mrksich, Ph.D. - Reg. No. 36,675

Name of applicant, assignee or
Registered Representative

S. Mrksich

Signature

February 12, 2002

Date of Signature

Our Case No. 7814/42

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Mrksich et al.)
Serial No.: 09/689,263) Examiner: David M. Naff
Filing Date: October 11, 2000) Group Art Unit No.: 1651
For: SURFACE MODIFYING)
COMPOSITION)

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectively requested that this Information Disclosure Statement be entered and the documents listed below and on the attached Form PTO-11449 be considered by the Examiner and made of record. Copies of the listed documents required by 37 C.F.R. § 1.98(a)(2) are enclosed for the convenience of the Examiner.

The references now cited are the following:

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|--|
| Borkholder, D.A., et al., "Microelectrode Arrays for Stimulation of Neural Slice Preparations", <i>J. Neurosci. Meth.</i> , 77, 61-66 (1997). |
| Chen, C. et al., "Geometric Control of Cell Life and Death", <i>Science</i> , 276, 1425-1428 (1997). |
| Deng, L. et al., "Self-Assembled Monolayers of Alkanethiolates Presenting Tri(propylene sulfoxide) Groups Resist the Adsorption of Protein", <i>J. Am. Chem. Soc.</i> , 118, 5136-5137 (1996). |
| Feldman, K. et al., "Probing Resistance to Protein Adsorption of Oligo(ethylene glycol)-Terminated Self-Assembled Monolayers by Scanning Force Microscopy", <i>J. Am. Chem. Soc.</i> , 121, 10134-10141 (1999). |
| Harder, P. et al., "Molecular Conformation in Oligo(ethylene glycol)-Terminated Self-Assembled Monolayers on Gold and Silver Surfaces Determines Their Ability to Resist Protein Adsorption", <i>J. Phys Chem B</i> , 102, 426-436 (1995). |
| Harris, J.M., <i>Poly(Ethyl Glycol) Chemistry</i> ; Plenum: New York (1992). |
| Hodneland, C. et al., "Biomolecular Surfaces that Release Ligands Under Electrochemical Control", <i>J. Am. Chem. Soc.</i> , 122, 4235-4236 (2000). |
| Hodneland, G. et al., "Design of Self-Assembled Monolayers That Release Attached Groups Using Applied Electrical Potentials," <i>Langmuir</i> , 13, 6001-6003 (1991). |
| Houseman, B. et al., "The Role of Ligand Density in the Enzymatic Glycosylation of Carbohydrates Presented on Self-Assembled Monolayers of Alkanethiolates on Gold", <i>Angew. Chem. Int. Ed.</i> , 38; 732-735 (1999). |
| Jeon, S.I. et al. "Protein-Surface Interactions in the Presence of Polyethylene Oxide", <i>J. Colloid Interface Sci</i> , 142, 159-166 (1991). |
| Jo, S. et al., "Surface Modification Using Silanated Poly(ethylene glycol)s", <i>Biomaterials</i> , 21, 605-616 (2000). |
| Kapur, R. et al., "Streamlining the Drug Discovery Process by Integrating Miniaturization, High Throughput Screening, High Content Screening, and Automation. on the CellChip™ System", <i>Biomedical Microdevices</i> , 2, 99-109 (1999). |
| Mrksich, M. et al., "Biospecific Adsorption of Carbonic Anhydrase to Self-Assembled Monolayers of Alkanethiolates that Present Benzenesulfonamide Groups on Gold", <i>J. Am. Chem. Soc.</i> , 117, 12009-12010 (1995). |
| Mrksich, M. et al., "Patterning Self-Assembled Monolayers Using Microcontact Printing: A New Technology for Biosensors?", <i>Tiptech</i> , 13, 228-235 995). |
| Mrksich, M. "Tailored Substrates for Studies of Attached Cell Culture", <i>Cell Mol. Life Sci.</i> , 54, 653-662 (1998). |
| Mrksich, M. et al., "Surface Plasmon Resonance Permits <i>in Situ</i> Measurement of Protein Adsorption on Self-Assembled Monolayers of Alkanethiolates on Gold", <i>Langmuir</i> , 11, 4383-4385 (1995). |
| Mrksich, M. et al., "Using Microcontact Printing to Pattern the Attachment of Mammalian Cells to Self-Assembled Monolayers of Alkanethiolates on Transparent Films of Gold and Silver", <i>Experimental Cell Research</i> , 235, 305-31 3 (1 997). |
| Mrksich, M. et al., "Using Self-Assembled Monolayers That Present Glico(ethylene glycol) Groups to Control the Interactions of Proteins with Surfaces", <i>Am.</i> |

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Chem. Soc., 680, 361-373 (1997).

Mrksich, M. et al., "Using Self-Assembled Monolayers to Understand the Interactions of Man-Made Surfaces With Protein and Cells", *Annu. Rev. Biophys. Biomol. Structure*, 25, 55-78 (1996).

Murphy, E.F. et al., "The Reduced Adsorption of Proteins at the Phosphoryl Choline Incorporated Polymer-Water Interface", *Langmuir*, 15, 1313-1322, (1999).

Pertsin, A.J. et al., "Low-Energy Configurations of Methoxy Triethylene Glycol Terminated Alkanethiol Self-Assembled Monolayers and Their Relevance to Protein Adsorption", *J. Phys. Chem. B.*, 102, 4918-4926 (1998).

Prime, K.L. et al., "Adsorption of Proteins onto Surfaces Containing End-Attached Oligo(ethylene oxide): A Model System Using Self-Assembled Monolayers" *J. Am. Chem. Soc.*, 115, 10714-10721 (1993).

Prime, K.L. et al., "Self-Assembled Organic Monolayers: Model Systems for Studying Adsorption of Proteins at Surfaces", *Science*, 252, 1164-1167 (1991).

Saneinejad, S. et al., "Patterned Glass Surface Direct Cell Adhesion and Process Outgrowth of Primary Neurons of the Central Nervous System", *J. Biomed. Mater. Res.*, 42, 13-19 (1998).

Sigal, G.B. et al., "Effect of Surface Wettability on the Adsorption of Proteins and Detergents", *J. Am. Chem. Soc.*, 120, 3464-3473 (1998).

Sigal, G.B. et al., "Using Surface Plasmon Resonance Spectroscopy to Measure the Association of Detergents with Self-Assembled Monolayers of Hexadecanethiolate on Gold", *Langmuir*, 13, 2749-2755 (1997).

Spinke, J. et al., "Molecular Recognition at Self-Assembled Monolayers Optimization of Surface Functionalization", *J. Chem. Phys.*, 99, 7012-7019 (1993).

Taunton, H. et al., "Forces Between Surfaces Bearing Terminal Anchored Polymer Chains in Good Solvents", *Nature*, 332, 712-714 (1988).

Wieland, B. et al., "Electrochemical and Infrared Spectroscopic Quantitative Determination of the Platinum-Catalyzed Ethylene Glycol Oxidation Mechanism at CO Adsorption Potentials", *Langmuir*, 12, 2594-2601 (1996).

Yousaf, M. et al., "Diels-Alder Reaction for the Selective Immobilization of Protein to Electroactive Self-Assembled Monolayers", *J. Am. Chem. Soc.*, 121, 4206-4287 (1999).

Attached also is a list of Applicant's pending applications or issued patents which may be related to the present application. Copies of the patents and or pending applications are attached along with PTO 1449.

In accordance with 37 C.F.R. § 1.97(g),(h), this Information Disclosure Statement is not to be construed as a representation that a search has been made and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

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This Information Disclosure Statement is being filed prior to the receipt of the first Official Action reflecting an examination on the merits and hence is believed to be timely filed in accordance with 37 C.F.R. § 1.97(b). No fees are believed to be due in connection with filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 116 to 1.21 be deemed necessary for any reason relating to these material, the Commissioner is hereby authorized to deduct said fees from Brinks Hofer Gilson & Lione Deposit Account No. 23-1925. A duplicate copy of this document is enclosed.

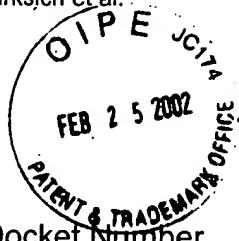
Applicants respectfully request that the listed documents be made of record in the present case.

Respectfully submitted,

K. Shannon Mrksich
K. Shannon Mrksich, Ph.D.
Registration No. 36,675
Attorney for Applicants

BRINKS HOFER GILSON & LIONE
P.O. Box 1 0395
Chicago, IL 60610
(312) 321-4200

09/689,263
Mrksjich et al.



LIST OF RELATED CASES

| Docket Number | Serial or Patent No. | Filing or Issue Date | Status or Patentee |
|---------------|----------------------|----------------------|--------------------|
| 7814/29 | 09/322,094 | May 28, 1999 | Pending |
| 7814/44 | 09/797,166 | February 28, 2001 | Pending |
| 7814/45 | 09/923,760 | August 7, 2001 | Pending |

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| TRANSMITTAL LETTER | | | Case No. 7814/42 |
|---|---------------------------------|------------------|------------------------|
| Serial No. 09/689,263 | Filing Date October 11, 2000 | Examiner Naff | Group Art Unit 1651 |
| Inventor(s) Mrksich et al. | | | |
| Title of Invention Surface Modifying Composition | | | |

TO THE COMMISSIONER FOR PATENTS

Transmitted herewith is Transmittal Letter (in duplicate), Information Disclosure Statement (in duplicate), List of Three (3) Related Cases with copies, Form PTO 1449, Thirty (30) Cited References, and Return Postcard.

- Small entity status of this application under 37 CFR § 1.27 has been established by verified statement previously submitted.
- A verified statement to establish small entity status under 37 CFR §§ 1.9 and 1.27 is enclosed.
- Petition for a _____ month extension of time.
- No additional fee is required.
- The fee has been calculated as shown below:

| | | | | | Small Entity | | Other Than Small Entity | |
|---|-------|---------------------------------|--|---------------|-----------------|-----------|-------------------------|-----------|
| | | | | | Rate | Add'l Fee | Rate | Add'l Fee |
| Claims Remaining After Amendment | | Highest No. Previously Paid For | | Present Extra | | | | |
| Total | Minus | | | | x \$9 = | | x \$18 = | |
| Indep. | Minus | | | | x 42 = | | x \$84 = | |
| First Presentation of Multiple Dep. Claim | | | | | + \$140 = | | + \$280 = | |
| | | | | | Total add'l fee | \$ | Total add'l fee | \$ |

- Please charge Deposit Account No. 23-1925 (BRINKS HOFER GILSON & LIONE) in the amount of \$ _____. A duplicate copy of this sheet is enclosed.
- A check in the amount of \$ ____ to cover the filing fee is enclosed.
- The Commissioner is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this communication or credit any overpayment to Deposit Account No. 23-1925. A duplicate copy of this sheet is enclosed.
- I hereby petition under 37 CFR § 1.136(a) for any extension of time required to ensure that this paper is timely filed. Please charge any associated fees which have not otherwise been paid to Deposit Account No. 23-1925. A duplicate copy of this sheet is enclosed.

Respectfully submitted,



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BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, ILLINOIS 60610
(312) 321-4200

S. Mrksich
K. Shannon Mrksich, Ph.D.
Registration No. 36,675
Attorney for Applicants

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231, on February 12, 2002.

Date: 2/12/02 Signature: S. Mrksich